

## ABSTRACT

A system and method for determining a coagulation time, e.g., TT, PT, aPTT, and ACT, of a test sample deposited in a test cartridge is disclosed. A cartridge housing having upper and lower major sides and a minor sidewall encloses a test chamber having a test chamber pivot element and is provided with a cartridge port for introducing a test sample into the test chamber,. Ferromagnetic agitator vane leaflets extend from an agitator pivot element supported by the test chamber pivot element intermediate the upper and lower major sides for rotational motion. The agitator vane leaflets can be swept, in response to an external magnetic field, through the test sample in the absence of coagulation. A timer is started when the agitator movement is commenced whereupon the agitator moves freely. Resistance to agitator movement due to coagulation is detected, and the coagulation time is measured.